Identification of COCs/Risk Drivers in Draft FS

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History: This message has been replied to.

One of the issues that has been identified for discussion in the next FS Team meeting is the identification of COCs in the draft Portland Harbor FS. In our comments on the draft RI and BERA reports, EPA commented that the draft risk assessments should not identify COCs but rather present the results of the risk assessment and evaluate the relative strength of each line of evidence in the uncertainty analysis. EPA believes that the identification of COCs is an FS task that imparts an element of risk management.

This approach is consistent with EPA policy. For example, the 1989 CERCLA RI/FS guidance does not mention COCs until Section 4.2 (Alternative Development Process). In addition, EPA policy identifies COCs according to the following definitions:

Chemicals of Concern (COCs): A subset of the COPCs that are identified in the RI/FS as needing to be addressed by the response action proposed in the ROD (Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, July 1999; page 6-10).

Chemicals of Concern (COCs) are the hazardous substances, pollutants, and contaminants that, at the end of the risk assessment, are found to be the risk drivers or those that may actually pose unacceptable human or ecological risks (Role of Background in the CERCLA Cleanup Program. US Environmental Protection Agency. Office of Solid Waste and Emergency Response. Office of Emergency and Remedial Response. April 26, 2002.).

On April 21, 2010, EPA provided a set of focused PRGs for evaluation in the draft. FS. This list represents a subset of chemicals that were identified as posing potentially unacceptable risk in the draft human health and ecological risk assessments. This list of chemicals has already been reduced from the list of chemicals identified as posing potentially unacceptable risk in the draft risk assessments. For example, a PRG was not developed for bis(2-ethylhexyl) phthalate (BEHP) based on the human health fish consumption pathway because no tissue-sediment relationship could be established for BEHP. Similarly, a PRG was not developed for lead based on the fish tissue residue line of evidence because the one tissue sample posing potentially unacceptable risk appears to be anomalous (lead sinker) and because not tissue-sediment relationship could be established.

As the FS moves forward, the expectation is that further refinements in the PRG list would occur. The ultimate goal of this effort is to develop a set of chemical specific target cleanup levels that allow the RAOs to be met. For example, although we have developed PRGs for a number of organo-chlorine pesticides, we may not need to develop target cleanup levels for these chemicals to achieve the RAO as long as we cleanup other chemicals such as dioxin, PCBs, and DDx to levels protective of the human health fish consumption exposure pathway. This process is described in Table 3-8 of the Duwamish FS. In addition, the effect of the various alternatives on the non-Risk Driver COCs are described in Tables 10-2 and 10-3 of the Duwamish FS. I have pasted these tables into the attached Powerpoint file.

For the next FS Team meeting, we would like to discuss the steps necessary to develop COCs for use in the FS considering the results of the baseline human health and ecological risk assessments, our comments on the risk assessments, our April 21, 2010 PRG letter and the LOEs used to identify AOPCs last summer.

Thanks, Eric

DuwamishRiskDrivers.ppt